

March 2, 2005

Ed Thomas
Chief, Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington DC 20554

Dear Mr. Thomas,

I am writing in support of the FCC's maximizing the efficient use of the 3650-3700 MHz radiofrequency band by permitting its use throughout the band by unlicensed devices under flexible technical limitations sufficient to prevent interference to licensed satellite services.

I am concerned, however, about the latter portion of the following tentative conclusion:

"45. We expect that a primary use for fixed unlicensed devices in this band would be to provide wireless broadband connectivity by WISPs in rural areas. Therefore, we propose to allow fixed unlicensed devices to operate in the 3650-3700 MHz band with a maximum EIRP of 25 Watts (14 dBW) in order to increase effective range. This EIRP should be beneficial particularly in rural areas - because, compared to current Part 15 limits, an EIRP of 25 Watts would more than double the signal range of an unlicensed device. We further believe that omnidirectional antennas would typically be employed for this purpose in order to achieve the most uniform coverage of a particular geographic area. To promote flexibility in system design, we propose to permit any combination of transmitter output power/antenna gain, so long as the 25 Watt EIRP limit is not exceeded."

I would encourage the FCC to further consider the potential for interference that relatively high powered devices using typical omnidirectional antennas might cause for mesh configurations of lower power devices. Such mesh networks might, on the other hand, coexist well with highly directional narrow beam, or phased array, antennas. Perhaps initially it would be best to limit the antennas to be used with higher power devices to parabolic or other antennas least likely to interfere with lower power devices in their vicinity.

Given the increasingly crowded circumstances of the 2.4 GHz band it would seem counterproductive to reserve any portion of the 3650-3700 MHz band for new licensed uses, when unlicensed devices seem more likely to make efficient use of the spectrum.

I recognize that, if it were to permit any new licensed uses, there is growing concern that the FCC might adopt an approach whereby, "the first licensee to acquire a license is guaranteed to have its operations protected from interference from other later in time licensees." I would concur with those strongly opposed to that approach. It would seem to have the potential to lock in place relatively inefficient solutions. It appears likely that in the next few years there will be radical improvements in design of affordable antennas

and it would be most helpful to create a field of play where those offering newer, better solutions can leapfrog their predecessors rather than be boxed in behind them.

I am among a group of volunteers who, in our off hours, are helping communities in the Roxbury and the South End neighborhoods of Boston to develop community wireless networks using unlicensed 802.11 b/g devices with the aim of making Internet access more readily available to low-income households. Families that are hard pressed to make ends meet but eager to take advantage of the Internet are grateful for these opportunities. It is exciting to see the recent FCC initiatives in the area of spectrum allocation that can make such efforts more widespread and successful. Thank you for those initiatives.

- Stephen Ronan
76 Garfield Street
Cambridge, MA 02138